



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/597,390

07/24/2006

Tokumi Kobayashi

P30306

1319

52123 7590 03/27/2008
GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER

SHECHTMAN, SEAN P

ART UNIT

PAPER NUMBER

2121

NOTIFICATION DATE

DELIVERY MODE

03/27/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
pto@gbpatent.com

Office Action Summary	Application No. 10/597,390	Applicant(s) KOBAYASHI, TOKUMI	
	Examiner Sean P. Shechtman	Art Unit 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-15 are presented for examination. Claims 1-15 have been amended.

Specification

2. Objection withdrawn.

Claim Objections

3. Claim 8 is objected to because of the following informalities: Referring to line 3, "comprises personal hand phone system radio communication device" should be rephrased "comprises a personal hand phone system radio communication device". Appropriate correction is required.

4. Claim 9 is objected to because of the following informalities: Referring to line 6, "the removable device attached" should be rephrased "the removable device is attached". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the destination location" in lines 15-16. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination, it will be assumed that the destination location is a destination location. Claims 2-5, 9-14 depend from claim 1 and inherit the same deficiencies.

Claim 1 recites the limitation "each of the identification codes" in line 19. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination, it will be assumed that each of the identification codes is an identification code. Claims 2-5, 9-14 depend from claim 1 and inherit the same deficiencies.

Claim 1 recites the limitation "the removable devices" in line 19. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination, it will be assumed that each of the removable devices is a removable device. Claims 2-5, 9-14 depend from claim 1 and inherit the same deficiencies.

Claim 6 recites the limitation "the destination location" in lines 17-18. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination, it will be assumed that the destination location is a destination location. Claims 7-8, 15 depend from claim 6 and inherit the same deficiencies.

Claim Rejections - 35 USC § 102

6. Rejections withdrawn.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-9, 11-15, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,822,210 to Kobayashi et al (hereinafter referred to as Kobayashi) in view of U.S. Pub. No. 2003/0139176 to Fujiwara et al (hereinafter referred to as Fujiwara), previously supplied by the examiner.

Kobayashi teaches the following:

Referring to claims 1, 6, 8, 15, Kobayashi teaches a management method for a removable device, including a parts cassette or a suction nozzle, that is attachable to an apparatus and is removable from the apparatus (Fig. 2, cartridges), the management method comprising:

one or more removable devices each of which has an identification code given thereto for identifying the corresponding removable device (See Fig. 2, cartridges, Col. 11, lines 59-67, the cartridge ID bar code);

a database (Figs. 1 and 12, element 31a, database) for storing maintenance data for the one or more removable device (Figs. 1 and 12, element 31a, database; Col. 12, lines 22-40, database stores/updates an inventory parts file; Fig. 14, elements 102, the examiner respectfully submits that the inventory parts file indicating the number of remaining parts is maintenance data for one or more cartridges because Kobayashi teaches that "if parts run out during the mounting of parts by a mounting machine, reel replacement processing is executed. At this time a new reel is found and loaded in a cartridge" in Col. 31, lines 29-33; See Fig. 2, cartridges), the maintenance data including location data indicating the location of the removable device in a component-mounting plant (Fig. 14, element 102, cartridge ID; Col. 11, lines 59-64 and Col. 17, lines 41-44, the cartridge ID is the address on the storage rack, Col. 31, lines 11-28, cartridge ID address changed to part setting position; Col. 1, lines 5-9, SMT manufacturing);

a data management unit (Col. 12, lines 22-29, Figs. 1 and 12, server 31) for recording and reading the maintenance data for each removable device into/from the

Art Unit: 2121

database (Col. 12, lines 22-29, Figs. 1 and 12, server 31 and database 31a, server registers each type of file, the files are added on and updated);

a communication device (Fig. 12, element 41, Col. 13, lines 21-24, LAN) for sending and receiving the maintenance data between a terminal and the data management unit (Col. 11, lines 25-52, personal computer manages inventory parts file, including the number of remaining parts; Fig. 12, element 32, personal computer, Col. 12, lines 48-51; Fig. 12, element 31, server, Col. 12, lines 22-28, server registers each type of file, the files are added on and updated);

wherein the data management unit stores the received maintenance data for each of the identification codes of the removable devices (Fig. 12, element 31, server, Col. 12, lines 22-28, server registers each type of file, the files are added on and updated; Fig. 14, element 102, parts inventory file, cartridge ID and number of parts remaining), the received maintenance data including the location data (Fig. 14, element 102, cartridge ID; Col. 11, lines 59-64 and Col. 17, lines 41-44, the cartridge ID is the address on the storage rack);

the terminal including reading device for reading an identification code of one or more of the one or more removable devices (See Fig. 2, element 32 includes element 33, bar code reader; Col. 12, lines 51-54, reading cartridge ID), and inputting and outputting the read identification code together with the maintenance data (Col. 11, lines 25-52, personal computer manages inventory parts file, including the number of remaining parts, Col. 12, lines 5-20, personal computer changes the information of the location of the reel to the cartridge ID, Col. 12, lines 22-40, inventory management file is

stored in and updated in database, the examiner respectfully submits that the personal computer managing inventory parts file (the inventory management file including the number of remaining parts and cartridge ID) stored in and updated in database over a LAN (Fig. 12) is inputting and outputting the read identification code together with the maintenance data);

wherein inputting of a destination location of a device or anything by the terminal occurs every time the location of the removable device changes (Col. 30, lines 14-24, Col. 12, lines 5-20, cartridge extracted and location of reel in the inventory parts management file is changed to the cartridge ID; Col. 30, lines 25-36, cartridge separated from reel and the location of the reel is changed to free; Col. 31, lines 11-20, cartridge set on cartridge table and reel location is changed to part setting position);

wherein reading of the identification code of the removable device occurs every time the location of the removable device changes (Col. 30, lines 14-24, Col. 12, lines 5-20, cartridge extracted and the cartridge ID is read; Col. 30, lines 25-36, cartridge separated from reel and the cartridge ID is read; Col. 31, lines 11-20, cartridge set on cartridge table and the cartridge ID is read).

2, 3, 7. The system for managing a device that requires maintenance according to claim 6, wherein the terminal having a reading function for the identification code is configured to read the identification code of the removable device; wherein the identification code of each removable device comprises a barcode, and wherein a barcode reader provided to the terminal reads the barcode (See Fig. 2, element 32

includes element 33, bar code reader; Col. 12, lines 51-54, reading cartridge ID; Col. 11, lines 64-65, cartridge ID is a bar code).

4, 11, 12. The management method for a device that requires maintenance according to claim 1, wherein the apparatus is a component-mounting machine, and the removable device is a parts feeder for supplying a component or a suction nozzle for holding a component by suction (Col. 1, lines 41-50).

5, 13, 14. The management method for a device that requires maintenance according to claim 1, wherein the maintenance data further includes history data including performance of the removable device and history of repair (Col. 15, lines 44-45, the number is decremented).

9. The management method for a device that requires maintenance according to claim 1, wherein the location data, which is inputted via the terminal, is stored in the data management unit, when the removable device is attached to the apparatus or the device is removed from the apparatus (Col. 30, lines 14-24, Col. 12, lines 5-20, cartridge extracted and location of reel in the inventory parts management file is changed to the cartridge ID; Col. 30, lines 25-36, cartridge separated from reel and the location of the reel is changed to free; Col. 31, lines 11-20, cartridge set on cartridge table and reel location is changed to part setting position).

Referring to claims 1, 6, 8, 15, Kobayashi teaches all of the limitations set forth above, however fails to teach the terminal is mobile and the communication device comprises a personal hand phone system radio communication device.

However, Fujiwara teaches a mobile terminal (Fig. 1, element 1) including reading device for reading an identification code of a device (page 4, paragraph 83, component code), and having a function of inputting and outputting the read identification code together with maintenance data (Page 4, paragraphs 86 and 88, component code, ordering quantity, time and date, automatic ordering of out-of-stock components); and communication device, including a PHS radio communication device (Pages 3-4, paragraph 80; Fig. 1, elements 3, 31, 32) for sending and receiving the maintenance data between the mobile terminal and a data management unit (Fig. 1, element 33).

Kobayashi and Fujiwara are analogous art because they are from the same field of endeavor, mounting machine management.

At time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the mobile terminal and communication device of Fujiwara with the mounting machine management system and method of Kobayashi.

The suggestion/motivation would have been because Fujiwara teaches the stockout information from the mounting apparatus is automatically fed to the portable terminal, the inventory of the out-of-stock components is automatically inquired based on the inputted information, the targets of order are designated automatically or manually by the operator, and an order for the components is placed to the designated targets of order from the portable terminal, thereby eliminating the necessity for the operator of the mounting apparatus to move all the way to the place of a telephone machine, a facsimile machine and a computer. Furthermore, the operator can place an

Art Unit: 2121

order for the components without communicating with an ordering staff member, and hence the working efficiency of the operator further improves (Page 4, paragraph 88). Furthermore, Fujiwara teaches a portable terminal, a message notifying system and a message notifying process allowing an operator of apparatus to efficiently obtain desired information without staying away from his/her place of duty (Page 1, paragraph 6).

Or, because both references teach a computer and a communication device for sending and receiving maintenance data between the computer and a data management unit, it would have obvious to one of ordinary skill in the art at the time that the invention was made to substitute one computer and communication device for the other to achieve the predictable result of providing a mobile terminal and a communication device, including a PHS radio communication device, for sending and receiving maintenance data between the mobile terminal and a data management unit.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,822,210 to Kobayashi et al (hereinafter referred to as Kobayashi) in view of U.S. Pub. No. 2003/0139176 to Fujiwara et al (hereinafter referred to as Fujiwara), previously supplied by the examiner, as applied to claim 1 above, and further in view of U.S. Pat. No. 5,400,497 to Watanabe et al (hereinafter referred to as Watanabe).

Referring to claim 10, Kobayashi in view of Fujiwara teaches all of the limitations set forth above, however fails to teach the location data of the removable device stored

in the data management unit is read by inquiring via the mobile terminal, and the read location data is displayed on a display portion of the mobile terminal.

However, Watanabe teaches location data of a removable device stored in a data management unit is read by inquiring via a terminal (Col. 7, line 65 – Col. 8, line 18, parts name of the parts cassette stored in storing section 21 of recording section 11 (that includes a processing calculating section, see Fig. 4) is read by control section 27 and compared with the name of the part set on respective mounting positions of the parts supply position stored in the storage section 26 of the parts mounting apparatus), and the read location data is displayed on a display portion of the terminal (Col. 8, lines 14-18, Fig. 8; Fig. 5, element 7).

Kobayashi in view of Fujiwara and Watanabe are analogous art because they are from the same field of endeavor, mounting machine management.

At time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the parts cassette checking of Watanabe with the mounting machine management system and method of Kobayashi in view of Fujiwara.

The suggestion/motivation would have been because Watanabe teaches a method and system able to check whether or not the parts cassettes are positioning correctly (Col. 7, lines 65 - Col. 8, line 18 and Fig. 8).

Response to Arguments

9. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (571)272-3754. The examiner can normally be reached on 9:30am-6:00pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2121

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SPS

Sean P. Shechtman

March 14, 2008

/Sean P. Shechtman/
Primary Examiner, Art Unit 2121